

Gem & Jewellery News

The Brewster Angle Meter

A new means of gem identification

The Brewster Angle Meter, produced by the GAGTL, was launched at the International Jewellery London Fair on 5 September by Peter Read.

Staff at the GAGTL, together with Peter Read, have always considered the Brewster angle phenomenon to have potential in testing gems, but the requirement really centred on producing a practical instrument which was not too expensive. In effect, it was not until low-cost lasers became available that this goal became achievable. In the last four years Peter Read and Noel Deeks have experimented with many designs before producing the current instrument which will be a significant addition to the range available to gemmologists.

A portable, battery-operated meter for determining the Brewster angles of faceted gemstones, the instrument is capable of providing a wide range of measurements without the need for contact fluid. It is capable of giving readings for stones with a gemmological refractive index that is too high for a standard refractometer. Therefore readings may be obtained



Peter Read demonstrates the new Brewster Angle Meter

for such stones as diamond, cubic zirconia and moissanite.

A description of the meter with Brewster angles of a wide range of

gemstones will be published in the October issue of the *Journal of Gemmology*.

Roger Harding

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Editorial

While in the context of the millennium it would be idle to consider developments and discoveries compared with previous millennia, we should not forget that the century is changing too, and it is customary to review our subjects over more manageable intervals.

During the twentieth century descriptive and determinative mineralogy and gemmology have expanded with the refinement of testing methods and apparatus: we all know that many new gem species and varieties have been reported and even as I write the gem potential of Somaliland and Madagascar is being reviewed, with great promise for the future. For this year's summer show at London Guildhall University I recently exhibited a case of 'gemstones of the century' in which were included 50 or so specimens: tanzanite, red beryl, blue Paraiba tourmaline, Mali green grossular garnet, Namibia spessartine with many others.

A more significant change over the century is the fragmentation of work: it is not always possible to stay in the same work environment for the whole of working life. Along with this

major change is a complementary fragmentation of leisure and it is this which has caused a slow-down in part-time studies of every kind, including our own. It is not that there really is less time as this would be a nonsense: it is that people are unconsciously persuaded that 'time is short': this is a problem often brought to me by students who over and over again have 'shortage of time'. How this problem is to be addressed is not clear: it may be that the Internet and similar communication vehicles (often said to be one of the chief reasons for the decline in part-time study) will provide an answer. Teaching and study in the next century will be very different from the styles we have known so far and which have served the past century well.

Our study is unlike many others as we have to examine actual specimens and there is no substitute for hands-on work. Orwell (1984 I think) invented 'feelies' (complementary to 'movies') and perhaps something along these lines will form part of twenty-first century gemmology!

Michael O'Donoghue

1999 Annual Conference

New Developments in the Gem World

Sunday 31 October 1999 – Barbican Conference Centre

Current developments in gem testing, disclosure and new sources of natural gems presented by a distinguished gathering of experts. Presentations will include:

The challenges of gem identification at the close of the twentieth century
James Shigley – GIA, Carlsbad, California

New African gemstones and their acceptance in the market-place
Campbell Bridges – Nairobi, Kenya

Colourful language or a treatment in store: retailing in a gem minefield
Jack Ogden – NAG, London

The Conference fee of £70 plus VAT for GAGTL members (£90 plus VAT for non-members) includes entry to all lectures, morning and afternoon refreshments and finger-buffet luncheon. For full details and a registration form contact Mary Burland on 0171 404 3334.

Diamond branding – what is the aim?

A diamond is forever – but is the diamond trade?

This slogan has been one of the mainstays of the diamond trade, at least in getting the public to buy diamonds, but we have all grown complacent and regard the diamond trade, in its present format, to be forever.

This has been so because of the force and position that De Beers hold in diamond trading. They have a one channel distribution chain, they have most of the rough and can dictate how much is sold onto the markets. This has given stability and growth in value for diamonds over the years. Slowly this monopoly situation is being eroded. This has been mainly due to an over-production of rough and constant prospecting for new sources. We saw the Australians breaking away from the De Beers' arrangement, complain-

ing that they were not being paid sufficient for the rough as they produced it. We ended up with an excess of small, lower grade rough and consequently a downward spiral in the prices of polished small stones. This could happen to other sections of the diamond trade. There has been a worry for many years about the Russians marketing their own stones independently. Angolan rough is plentiful to the extent that at the recent meeting of the World Federation of Diamond Bourses held in Moscow, the presidents passed a recommendation asking members not to purchase such rough.

The effects of the Canadian fields when they go into full production are yet to be felt.

The main concern of the Moscow meeting was the worry many of the sections of the diamond trade now feel about the De Beers idea of branding stones. The fear seems to be that De Beers will go down another route to market diamonds to the public. To date they have sold all their diamonds through their selected sight holders, who cut and polish these stones before selling them through other dealers to distributors, manufacturers and so on to the final end user. The trade feels that De Beers, with its high advertising budget, could persuade the public to buy only diamonds with their own brand. My own analysis of the branding concept was that it started as an idea to reassure the public that they were buying a real diamond as opposed to a synthetic, but then De Beers saw it as a marketing tool to distinguish their stones from those coming from other sources.

The branding will apply to a small selected number of stones, probably those of over one carat of the higher grades, so there will be problems when people go into a high street jeweller thinking that every stone in the cluster of the ring that they have purchased for £100 will have a De Beers' brand on it.

Harry Levy

Treatments – Disclosure – Education

Comments from Corinna Pike

With millennial fever gaining pace, important subjects are being debated, not least as to how to tackle the critical issue of treatments.

From a retailing perspective, it comes down to focusing on the interface between our industry and the general public; in other words, the front line salesperson and the customer. At the International Gemological Symposium hosted by the GIA in San Diego in June (reported on p. 59), key words were repeated time and time again, by the speakers and attendees, as the main New Millennium core elements; Globalization, Ethics, Pledge, Integrity, Education, Customer Service, Internet, Disclosure, etc. We need to embrace these challenges and be equipped to handle them.

At the close of this millennium, we have a myriad of treatments available on the market; to confuse, to trick and, potentially, to defraud the unwitting customer. We need to identify whether a stone has been treated, and how. Is the gemstone stable or will it alter following workshop procedures? Is it worth what it is purported to be or is the gemstone masquerading as an improved stone? Treatments have been around since recorded history began. Today, however, methods of enhancing stones have become more sophisticated, and in many cases hard to detect without elaborate instruments. As a question of ethics, disclosure is the right way forward, and can be handled carefully and wisely.

Education leads to improved skills which in turn enables one to deal with the complexities facing our industry today. To avoid negative publicity through misinformation, these critical issues can be dealt with by publication

Pegasus diamonds

A concern of the Moscow meeting of the World Federation of Diamond Bourses and many sections of the diamond trade is that of the Pegasus stones. They are supposed to be diamonds of a brown colour that have somehow been processed to look white.

The GIA, to date, say that they cannot distinguish such diamonds and the trade is relying on the promise given by Lazare Kaplan, the distributors of these stones, that they will have the information lasered onto the girdle of all such diamonds.

The Moscow meeting passed a resolution stipulating that it must be disclosed if a diamond has been treated or processed in order to alter or enhance its colour; the removal of a lasered inscription indicating that a diamond has been treated or processed in such a way shall be considered a deceptive practice.

Harry Levy

of the facts – accurate knowledge is essential. Qualifications gained many years ago need to be updated with supplementary reading, and refresher gemmology courses are available to keep one in touch with new developments.

Any type of treated stone (as well as synthetics and imitations) may pass through a jeweller's hands in the showroom, by way of repair, valuation or second-hand purchase. Old cut gems may also have been removed from their antique settings for treatment. A sobering thought – the jewellery salesperson is the last line of defence, and the first line of attack.

Retailers – the best promoters

The Congress of the ICA, the International Coloured Stone Association, was held in May in Albano Terme near Venice and following Paolo Valentini's term of office, Israel Eliezri was elected president.

The ICA is an association of miners, cutters and dealers of coloured gemstones and one of their functions is to promote the sale of coloured stones. To promote gemstones is a very costly affair and needs a sus-

tained campaign, but I have said in the past that the best promoters for our trade are the retail jewellers. If they endeavour to show the wide and wonderful selection of coloured stones that nature has enriched us with, people will buy them.

We are continually faced with a changing world, all those who wish to survive must be willing to change and to adapt to new circumstances.

Harry Levy

Man-made stones: do you know how they should be described?

Currently, there is a proliferation of man-made stones on the market, not that they are being sold as natural, but rather because they are relatively cheap and repeatable in consistent colours and sizes.

Strictly speaking all man-made stones should be designated as artificial, but since this word is somewhat derogatory, and since there are two distinct types of *artificial* stones on the market, they are divided into two broad types – *synthetics* and *imitations* (either paste or glass, or synthetic materials imitating other gems).

Synthetics

A synthetic stone is a man-made stone that has the essential physical characteristics of its natural counterpart; an imitation is a stone that need not have any of the physical properties of the natural stone it tries to imitate. Thus a synthetic ruby will have the same composition, hardness, refractive index and specific gravity as that of a natural ruby.

Glass or paste

Often the pastes will look better than the synthetic stones, and both will look better than natural ones, which is one of the give-aways when one encounters them; they look 'too good'. But the main difference between synthetics and the pastes is the hardness. Pastes being made out of glass are nearly always softer than the synthetic and natural stone they are trying to

When selling man-made stones, synthetic must be sold as 'synthetic' and the term should not be used for glass stones – these should be invoiced as 'glass' or 'paste'; and when selling glass stones it is advisable to educate the buyer about the relative softness of glass (even hardened glass) to avoid future problems about quality and durability. Usually glass stones tend to be cheaper than a similar looking synthetic, and both these are cheaper than the natural stone.

counterfeit. They look good when new, but with wear they scratch, tarnish and chip far more easily; they are not durable.

Synthetic materials imitating other gems

Traditionally the most common sorts of synthetics sold have been Verneuil-grown spinel and corundum. These come in a variety of colours resembling natural stones. The correct terminology for, say, the aqua-looking variety is 'synthetic spinel aquamarine colour', not 'synthetic aquamarine'. They are referred to in the trade as synthetic aquas, but this is incorrect as the material is spinel. For it to be a synthetic aquamarine the crystal grown has to be a beryl. These do exist as research specimens but would be, if offered, much more expensive than synthetic spinels.

'Better' synthetics

For years the producers of synthetic stones grown by newer methods than Verneuil's have wanted to distinguish their stones in some way. They can be classified as the 'crystal growers' and stones such as those produced by/as Chatham, Gilson, Biron, Ramaura, etc., fall into this category. They claim that their stones are 'better' than the ones produced by the Verneuil method; are more expensive to produce and take longer to grow, and therefore should not be classified in the same group as 'ordinary' synthetics. They have wanted to use such terms as 'cultured', 'man-made', 'laboratory grown' and so on, but to date the legislators for the trade have prevented this and maintained that the correct designation is 'synthetic', possibly qualified with the name of the producer or a brand name.

The crystal growers constantly complain about this situation, claiming that legislators are mainly involved in the selling of natural stones, and regard these 'better' synthetics as a threat to their own trade. They have partially won their fight in the United States and can use terms such as 'man-made' and 'laboratory grown', but in the UK this is still not accepted practice.

I started by saying that traders were not trying to sell man-made stones as natural, but there are so many different kinds of synthetic stones on the markets now that at some stage in the production chain someone will try to sell them as nat-

ural, or omit to mention that they are synthetic and hope that the buyer will assume they are real.

Synthetic quartz

The most problematic stone to date has been synthetic quartz. Examples come in a variety of colours resembling all shades of natural amethyst and citrine, and now we have alerts that there is a synthetic quartz imitating ametrine (a bi-colour quartz in which one part is purple and the other yellow). The only country where such stones have been mined has been Bolivia, and the synthetic ones are being sold in, yes, Bolivia! They are not made in Bolivia so someone early on in the distribution chain is trying to pass them off as real. Another

stone being imitated is hematite. There are also similar problems with chrysoberyl and peridot and possibly many other species.

Also, it is rumoured that such stones as synthetic rubies produced by the Verneuil process are being tampered with. Traditionally it has been easy to spot such stones by looking out for curved growth lines in the colour zoning, but heating can remove these lines and the stones could then be confused with the new rubies coming out of Myanmar (Burma), Vietnam and Africa.

More and more gems are appearing as a result of new technology, both in the field and in the laboratory, and one does need current knowledge to minimize the possibility of any errors.

Harry Levy

‘Cartier 1900–1939’ travels to Chicago

This stunning exhibition, previously shown in New York and London, will be shown at the Field Museum of Natural History, Chicago, from 2 October 1999 to 16 January 2000.

The exhibition, organized by Judy Rudoë of the British Museum and Stewart Johnson of the Metropolitan Museum of Art, was never intended to travel elsewhere, but it was such a success that other museums now wish to show it. Cartier have generously agreed to lend the objects from the Art Cartier Collection once again, as have the other public and private collections.

The Field Museum will recreate as far as possible the installation conceived by the British Museum, when the exhibition was dramatically redesigned to see the pieces in their historical context and there was much additional material not shown in New York. Objects from ancient and exotic cultures demonstrated Cartier’s genius at adapting earlier motifs, contemporary photographs showed clients wearing their pieces, from film stars such as Gloria Swanson to fashion gurus like Daisy Fellowes. Enlarged graphics will illustrate fantastic creations that no longer survive, the Cartier houses and the workshops, fashion shoots by Steichen, Man Ray and Horst, or blow-ups of the objects themselves. Others will show at a glance how

pieces could be transformed, while designs and archive books from Cartier London will provide further insight into the production process. The Field Museum will include all these additions and will present objects from its own collections – Egyptian faience, Chinese jades and Japanese inro – items of the kind that the Cartier family themselves collected, alongside Cartier’s own creations.

The exhibition will be accompanied by a new edition of the catalogue, *Cartier 1900–39* by Judy Rudoë, produced specially for Chicago by the British Museum Press and incorporating much new information. The catalogue will be published in the United States by Harry N. Abrams Inc., in both hardcover (\$75) and softcover (\$40).

Lecture/Booksigning: Cartier 1900–1939. Jeweler of Genius Saturday, October 2, 1999, 2 pm, at The Field Museum, Chicago.

British Museum Curator, Judy Rudoë, will reveal the many exciting discoveries that came about during the preparation of the exhibition and catalogue, the detective work that lies behind a show of this kind, and the workings of this legendary jeweller whose remarkable archive has provided the basis for much new research.

Saleroom notes

In Geneva Christie’s sold an unheated Burma ruby of 8.48 ct set with diamonds in a ring, the price reaching \$975,000: it was formerly the property of Queen Marie-José of Italy.

In their ‘Jewels as Art’ collection, also sold in Geneva, a fine red tourmaline featured in a jasper and rock crystal ‘octopus’ necklace, realizing \$46,000. This sale realized \$2 million and lots were 99% sold. The aim of the owner was to bring together objects of innovative, even audacious styles. A pair of perfect matching white pearl drops, each weighing more than 100 grains, fetched \$531,700.

In Hong Kong the most spectacular lot was a 30.39 ct briolette diamond, internally flawless and D colour, mounted in a pin. This sold for \$2 million, a record. Crystals from which briolettes can be fashioned are hard to find, this accounting for the scarcity of large diamonds fashioned in this style.

Jadeite

All colours of jadeite performed well with a necklace of 65 beads measuring 7.8 to 9.7 mm realizing \$1.8 million and a pair of saddle rings, cut from the same highly translucent vivid emerald-green rough as the necklace, fetched \$546,000.

In London ten Antique and Art Deco jewels from a private collection were sold for a total of \$955,000. Two important Burmese rubies in this collection were certified as unheated. An enamel swan pendant necklace by Lalique, circa 1902, once the property of Queen Alexandra, wife of King Edward VII, was sold for \$143,000.

Forthcoming sales

A sale to be held by Christie’s in which important Indian jewellery and gemstones will be featured, is scheduled for 6 October in London. There will be 250 lots.

Fine jewellery sales will also be held by Sotheby’s on 7 October and Phillips on 19 October.

Michael O’Donoghue

The gem-producing potential of Somaliland – a new Sri Lanka?

A report by Judith Kinnaird

My visit to Somaliland had not started well. I had arrived on an ECHO flight from Nairobi (EC Humanitarian Organization) and had landed in Hargeisa, the capital, along with about eight other people of assorted nationalities bound for a peace conference.

Unfortunately, the normal rota for the plane that day would have been for it to land in Berbera on the Gulf Coast, which was where my visa was waiting but, because of the conference delegates, that day it had come to the capital instead. A four-hour delay then occurred at the airport whilst 'Mr Fixit', my mentor, was found. This gave me the opportunity to learn about the country from the various officials who felt it important to keep me company during my sojourn in the VIP lounge whilst visa formalities got sorted.

The discovery of gemstones in Somaliland and their subsequent extraction only began in 1990. The widespread distribution and broad range of gemstones available makes it all the more surprising that gemstones have come to light so recently. My visit to Somaliland had been arranged to

consider the small-scale mining potential in the country as part of an EC programme to investigate the sustainable exploitation of natural resources. The gemmological potential may provide an important income generation in a country where many will earn only \$10 per month, not necessarily because of their primitive state, but more as a consequence of a bruising civil war.

Difficulties

Visits to various gemstone-producing areas proved quite difficult as many of them are only reached by tracks little better than the bed of a dried-up stream, resulting in bone-shaking journeys which might take five hours to do 50 miles. Also, the Ministry of Water and Minerals did not want me to visit any private sector producers without being accompanied by a person from the Ministry, and groups in the private sector showed considerable reluctance to accept a Ministry representative since most had not paid for a licence for mineral working. Eventually, most of the initial problems were solved and I travelled extensively round the coun-

Somaliland

Somaliland lies in the Horn of Africa. It has a very varied scenery ranging from fertile upland plateaux to forested mountainous regions and a scrubby hot coastal plain fringed by white sands.

In 1886, Somaliland became a British Protectorate. At independence in 1960, Somaliland existed as an independent state for just five days before joining Italian Somalia. In 1982, a protracted civil war began which lasted nine years before it was agreed to restore the State of Somaliland. Since 1993 the pre-independence split between the north-western section, that was a British protectorate, and the rest that was Italian, returned and the old name of Somaliland was readopted.

try, particularly in the north-east from Sheikh to Berbera on the coast where the temperature was in excess of 40° C (and that was in the winter) to Borama in the west, which is the centre for emerald production.

Numerous varieties

Once people knew that I was interested in gemstones, everywhere I went I was inundated by collectors and traders who wanted to sell me their goods. Among more than forty different mineral species produced, were a variety of gemstones varying from emerald, ruby, sapphire and aquamarine, to minerals like garnet and amethyst, some of which were of considerable size and excellent colour. Other gems like phenakite, alexandrite and heliodor were reported though not seen, and it was unwise to place too much reliance on local gem identification. This is not due to any unscrupulous behaviour on the part of most producers or traders, rather a lack of knowledge as they begin to learn to identify gemstones.



Some of the workers at one of the emerald localities in the far west of the country. The emeralds occur close to the contact between an intrusive pegmatite and the host black micaceous schist.

Thus of occurrences reported as tanzanite, one turned out to be of purple fluorite the other of purple vesuvianite. Similarly, one locality believed to produce emerald, whilst right in the middle of a rich pegmatite belt, was found to contain bright green quartz coloured by secondary copper minerals between the quartz crystals. Green epidote and diopside are frequently thought to be tourmaline or peridot.

One group told me they were working green garnet. Although the rocks were of the right composition for potential finds of green garnet, the mineral they thought was green garnet was largely epidote, although scapolite, green amphibole and orange hessonite garnets also occurred, and we did indeed succeed in finding one tiny green garnet. Despite the disappointment of sometimes having to tell people that the minerals they were mining were worthless, there were some localities with exciting potential. In one area, the mineral believed to be tourmaline was in fact epidote, although it was accompanied by blue zoisite which, if found in sufficiently large pieces, could have some value.

In conversation with a very impressive lawyer in Hargeisa, I was told that gemstones are also being produced in the Bossaso area on the coast in the far northeast, which is consistent with the geology shown on the geological map of Somalia. He also maintained that the gemstones which are appearing from Garowe to the east have been robbed from ancient graves dating back as far as the civilizations of ancient Egypt. He also believed that some of the gemstones referred to in the bible had their origins in Somaliland.

Diamonds?

Unfortunately there is a widespread belief among the people of Somaliland that there is an abundance of diamonds in the country. This is based on the mis-identification of quartz by a few locals and traders. These men have 'diamond testers' which they believe distinguish diamonds from other stones on account of its hardness. The testers being used are the sort that are specifically



The team who accompanied me in the field (from left to right): Aingel (which translates as 'Old Man'), Hassan Saeed Omar from the Ministry of Water and Minerals, and Hassan Ibrahim, the driver and a keen amateur gemmologist.

designed to distinguish diamonds set in jewellery and were made to show a hardness of ten for quartz crystals, whilst some minerals were shown to have a hardness of anything up to 12! The commonly occurring concentration of small quartz crystals are called 'sugar diamonds' by these traders.

On one occasion, following an afternoon studying an extensive outcrop of water-clear rock crystal near the Dabail Weina (a locality from which 200 tons of piezo-electric quartz had been extracted from a 5 m deep trench during 1977-78), my driver, myself and guide were arrested and taken to prison, because the locals had reported we had stolen their diamonds. Fortunately, a permit from the Ministry of Minerals, which stated that we were on government business was reluctantly accepted.

The miners

Some groups of gem producers comprise half-a-dozen men, while others are moderately well-organized with more than twenty workers. Typically all the groups are extracting gemstones from hard rock with the minimum of tools. In addition, one group near Heinweina had no camping

equipment, yet they stayed on the mountain for four or five nights at a time because their aquamarine mine is 8 km from the village and more than 500 m up in rough mountainous terrain. All groups face the same problems of lack of equipment, lack of access to overseas markets, lack of capital to travel to foreign Gem Trade Fairs, lack of any central display and exhibition centre to attract the attention of the many foreign visitors to the country, lack of knowledge on relevant mining equipment and how to use it, and often the most basic problem of difficulty of identification of even the common minerals.

Buying gems

Gems for sale are not readily obtained, and it is necessary to become acquainted with producers on a personal basis to get good material, although the Somalis are currently in the process of setting up a gemmological association in the capital Hargeisa. Once this association has been established it will form a focus for the collection and trading of gemstones and mineral specimens. I did visit one authorized dealer of gemstones in Hargeisa who buys stones from producers and says he also owns

a gold prospect. He had a variety of minerals on display, most of which were of dubious quality. He also tried to persuade me to buy some mercury which he says is 'dripping out of rocks' in an unspecified locality. Later my mentor suggested that it is more likely from Russian missiles which are remnants of the war.

Among the more enterprising businessmen, one young man showed me more than a hundred Somalia gemstones cut in Ethiopia, for which he paid \$1500. Among these stones were some extremely handsome dark purple amethysts, a large cabochon of orange opal, numerous small red garnets, some green chrysoberyl, colourless spinel or zircon, deep red ruby and an occasional sapphire, but no emerald. He said he intended to take these as a display collection to the Far East to generate interest in the trading of raw uncut gemstones.

Important deposits

Amazingly, despite their long history, I was told that they have only had a written language in Somaliland since 1972. The country has a population of 1.1 million people, half of them nomadic pastoralists, and the main economy of the country is based on the export of around three million head of camels, cattle, sheep and goats from Berbera. The animals come from all over the region, including Ethiopia, making their way for hundreds of miles, grazing as they go. But agriculture cannot sustain the development of the country and if a legalized gemstone production can be established it will go some way to providing much needed foreign income.

If the continental configuration was reconstructed around 500 million years ago (the time when the Pan-African pegmatites were formed, the source of many of the gemstones) then Sri Lanka and Madagascar, which at that time were part of the African landmass, lie in the same geological belt of rocks that extend from Somaliland to southern Africa – the Mozambique Belt.

The diversity of gemstones that are coming to light suggests that some excellent material could become available and that with development Somaliland could be an important world producer.

Escape into symbolism: the art of Ernestine Mills (1871–1959)

A synopsis of the lecture given by Irene Cockroft to the SJH on 21 June 1999.

In her enamelled tablet *Daphne Victrix* of around 1920, Ernestine Mills portrayed the goddess Daphne escaping the clutch of Apollo by turning into a laurel bush. Her sinuous depiction would be alluring if it was a flat surface painting. In enamel on silver it has a tactile, three-dimensional quality that makes it an icon of sensuality.

Silver leaf pailions have been fused under translucent enamel to reflect light. The metal base has been hand-beaten to give a subtle curve to

the surface. The subject lends itself perfectly to the preferred colours of Ernestine Mills – rich blues and greens, soft flesh tones, and gold outlining.

Daphne Victrix is typical of the work of the artist Ernestine Mills. It is small in scale – 13 x 18 cm being about the largest sheet of metal her gas-fired kiln would take. She made jewellery, heraldic regalia, hollowware and panels in the Arts and Crafts tradition, throughout a long career. Her working life extended from before her work



Daphne Victrix, enamel on silver, by Ernestine Mills c. 1920. (© Ernestine Mills design V. Irene Cockroft)

was first selected for the Royal Academy in 1900 to the year before her death in 1959.

Ernestine was a metalworker as well as an enameller. She trained at the Slade School, the Royal College of Art and Finsbury Central Technical School.

The stylistic influence of her teacher, Alexander Fisher, is apparent. Her monogram is EM but not all work is signed. Panel designs usually consist of one dominant figure in a simple setting. Symbols abound. Some enamels of birds and of the god Pan are whimsical in character. Often a lake and a crescent moon are featured. Angel wings gleam in iridescent colours.

Over eighty interesting examples of the work of Ernestine Mills have been traced by researcher and writer Irene Cockroft for a retrospective exhibition to be mounted at Leighton House in Kensington in autumn 2000. Irene is writing a biographical catalogue.

Irene was born in Australia. When as a young student she came to

England in 1960, she found that her great-aunt Ernestine Mills had died prior to her arrival. Mrs Mills' daughter, the late Dr Hermia Mills, was delighted to discover that she was not, after all, the last of her mother's line available to act as custodian of family records.

Ernestine's work has a social message. At a time when women were

disenfranchised, Ernestine Mills was a staunch Suffragist. She made enamelled jewellery as rewards for women imprisoned for campaigning for Votes for Women. She designed post-cards and panels that graphically portrayed the frustration women felt at their unjust treatment by successive male governments. In *Daphne Victrix*, the artist drew on legend to reinforce women's confidence in taking charge of their own destiny. She also enamelled a series of female saints. Examples of her work may be seen at the museums of London (Women's Suffrage showcase),

Cheltenham and Edinburgh in the UK, and the Delaware Art Museum in the USA.



Suffragette pendant by Ernestine Mills c. 1909. The Angel of Hope plays her harp outside Holloway Prison to comfort the 'Votes for Women' campaigner inside. The gemstones are in the Women's Social and Political Union Colours of purple, white and green. Courtesy of the Museum of London. (© Ernestine Mills design V. Irene Cockroft; photography David Cockroft)

B.W. Anderson manuscripts

Following the recent discovery of B.W. Anderson's notes amongst the GAGTL archives, it was agreed that arrangements should be made for these important documents to be preserved for posterity.

Microfiche of the first (and most important) MS notebooks of the late B.W. Anderson has been completed by Microformat of Rochester. The master fiche will be kept at GAGTL but copies will be made from it and held elsewhere to enhance security.

Items include *Notes on absorption spectra* begun in 1933, *General notes on testing methods* begun probably about the same time, *Notes concerning gem-stones 1926*, and *Tabulated data concerning the physical properties of precious stones* (compiled, like the absorption spectra book, with C J Payne) beginning in the 1920s.

All items are in good condition (it is the paper you have to worry about with old documents – never use sellotape) and I am very pleased that the first phase of bringing the documents up to modern retrieval conditions has been successfully accomplished.

Michael O'Donoghue

Tucson Gem and Mineral Fair

The GAGTL is arranging a trip to the Tucson Gem and Mineral Fair from 31 January to 13 February 2000.

The price of £790 will cover flights from London Heathrow to Tucson, and bed and breakfast accommodation in a hotel 10 minutes walk from the Convention Centre.

'Tucson' means gems and minerals by the million. Not to mention contact with suppliers, gemmologists and enthusiasts from around the world, plus seminars, gem and mineral shows and social events.

For a provisional itinerary and booking details contact Lorne Stather on 0171 404 3334.

Asian Art in London

After the success of 'Asian Art' held in 1998, the academic and commercial worlds are again collaborating to stage **Asian Art in London 1999**. For details of exhibitions, sales, lectures and special events from 9-20 November relating to all kinds of Asian art, telephone 0171 499 9190 or visit the website at <http://www.asianartinlondon.com>.

Treasures in a shoebox

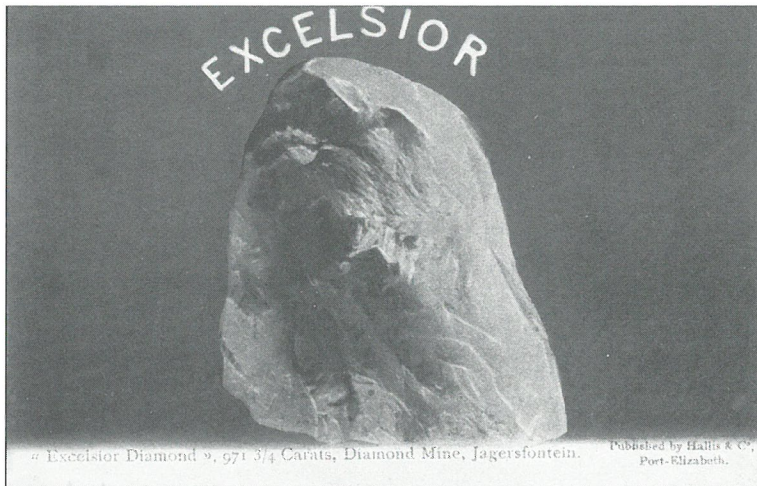
Exciting finds by Wilma van der Giessen

On one particular Sunday morning I had a great feeling that 'Mr Serendipity' was my best friend!

I was strolling around a gem fair in Amsterdam when my eyes were suddenly attracted by a shoebox filled with old postcards and stamps with the topic gems and minerals. Being a modest collector of such stamps and cards I started browsing through the box.

I could not believe my eyes when I saw a picture of the famous rough Cullinan diamond on one of the cards. The black and white picture also shows an inch ruler below the stone to give an impression of its enormous size. The picture was probably published by a newspaper because *Pretoria News* is written right below the picture. I soon realized that I had a piece of history in my hands and that the card will be a hundred years old in a few years time!

The card was written on 19 February 1905 and sent on 20 February 1905 – less than one month after the find of the Cullinan, which was on 26 January 1905 in the Premier mine in South Africa. A stamp on the back proves that the card reached Amsterdam on 12 March 1905.



The Excelsior diamond depicted on a postcard. Courtesy of the Provinciaal Diamantmuseum, Antwerp.

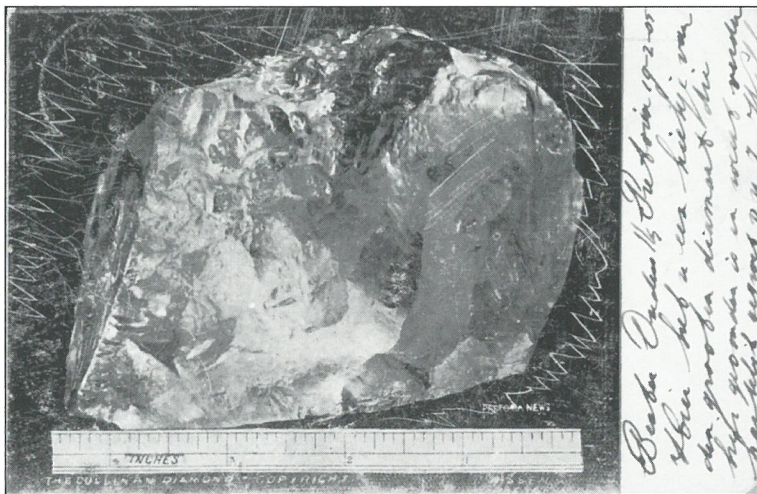
On the front next to the picture one can read in dutch '*Beste ouders, hier heb u een kiekje van den grooten diamant die hier gevonden is en verder hartelijk gegroet van uw zoon Willem*'. Translated: 'Dear parents, Here you have a little snap of the large diamond which is found here, further sincere greetings from your son Willem'.

The card was sent to Mr W. H. E. Kreuger, Ter Haarstraat 18 in Amsterdam. I wonder if either Willem or his family were diamond professionals.

I have given this interesting card on permanent loan to the beautiful diamond museum in Antwerp, where it is on display together with part of the stamp collection of Mr Luc van Roy.

Another treasure in the box is probably even older! The card shows a picture taken of the Excelsior diamond which was found in the Jagersfontein Mine on the evening of 30 June 1893. The weight of 971¼ old carats is written below the picture. In metric carats the weight of the stone was 995.20 ct.

When the card was sent and to whom is not known, because the back of the card is blank.



A 1905 postcard showing the Cullinan diamond. Courtesy of the Provinciaal Diamantmuseum, Antwerp.

Have you made any interesting finds whilst browsing at gem fairs, antique fairs or even car boot sales?

We would be interested to hear about any unusual items connected with gems and jewellery.

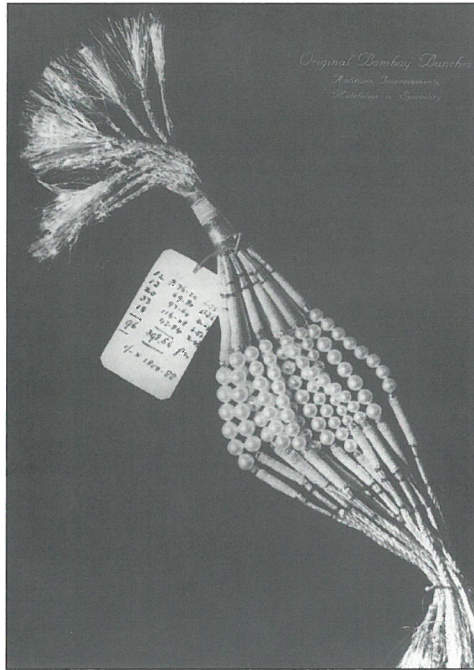
Bombay Bunch

A recent donation to the GAGTL by Alec Farn, previously Director of the Gem Testing Laboratory of the London Chamber of Commerce, included an excellent photograph taken in the 1930s of a Bombay Bunch strung on silver wire tassels.

These are his notes accompanying the picture:

The pearls were drilled by skilled Bombay workers. The photo shows a bunch and the relevant 'pearl statement'. This value was always in shillings (old money). Current prices ranged usually 5/- to 6/- up to 20/- base price. The statement shows how pearls were graded and strung and the number of pearls and their average weight etc.

When B.W. Anderson and C.J. Payne tested such bunches the fine silver wire was saved, it was extremely fine and of little weight or value. When it accumulated C. J. Payne took it along to



Johnson Matthey and sold it for scrap. The cash was used to pay for tea, sugar and milk for their tea! Silver was about 3/- an ounce troy (not a fortune).

Alec Farn

Congratulations . . .



Sarah on her wedding day

. . . to Sarah Kimber of the GAGTL on her marriage to Grant Mahoney on Saturday 10 July in Weybridge.

The wedding was celebrated on a beautiful sunny day and Sarah's dress was – most appropriately – decorated with hundreds of tiny pearls.

Sarah joined the education department of the GAGTL in 1994 and now works in the laboratory. She organizes the annual tours to Idar Oberstein and also teaches at the Gem Tutorial Centre and London Guildhall University.

The couple honeymooned in the Lake District and Scotland.

. . . also to Clare Phillips of the Victoria and Albert Museum, the SJH Programme Secretary, and her husband Peter on the recent birth of their son Thomas.

GIA Symposium

A personal view by Doug Garrod

Thirteen-hundred delegates from around the world met at the Hyatt Hotel, San Diego, for the Third International Gemological Symposium from 21 – 25 June 1999.

This multi-national event began on the afternoon of Monday 21 June with an opening address by Bill Boyajian, President of the GIA. This was followed by a video address from Nicolas Oppenheimer, Chairman of De Beers, and a keynote address from Peter Uberroth of the Contrarian Group.

Regrettably absent from this opening session was D. Vincent Manson, Chairman of the International Gemological Symposium Steering Committee, due to ill health* but a letter from him was read out expressing his appreciation for all the background work in arranging the event, his enthusiasm for gemmology and his wish that this enthusiasm should filter through to the symposium.

The first day was completed by an open-air reception entitled *Meeting the world* during which delegates had an opportunity to meet old friends and make new ones.

During each two-hour period on Tuesday and Wednesday there were different events running concurrently. It was often difficult to choose which event you would like to attend as each topic had its different attractions.

In the first session on Tuesday morning the themes were *Diamond sources*, *Timelessness of antique and estate jewellery* and *Gem identification*.

The second set of sessions were panel discussion groups with the following themes; *Diamond production*, *Leadership role of fine jewellery* and the *Role of man-made materials*. During each session a panel of speakers addressed different aspects of the subject under discussion.

The afternoon had the same format as the morning, except that one of

* Sadly Vince Manson died on 4 July 1999

the sessions was described as a 'War Room', an opportunity for lively debate about some contentious issues of the moment.

The sessions were *Diamond manufacturing and distribution*, *Pearls the sources*, and the 'War Room' subject was *Branding*. Later in the afternoon there were two panel sessions *The manufacturing and marketing of diamond jewellery*, and *Marketing pearl jewellery* with a 'War Room' session about *Appraisals and valuations*.

A reception was held in the evening hosted by BHP Diamonds Inc. at San Diego's Balboa Park where there was an opportunity to view the diamond exhibition which is currently being housed at the San Diego Natural History Museum.

There was a breakfast and fashion show on Wednesday morning sponsored by the Platinum Guild International. This was followed by a 'Meet the authors' session.

On Wednesday morning the presentations were: *Treatments, Coloured stone distribution and marketing*, and *Original and trend-setting jewellery design*.

At lunch-time there was an unscheduled presentation concerning the G.E./Lazare Kaplan treatment that is apparently being used to 'decolour' diamonds; these stones are being marketed by Pegasus Overseas Ltd. GIA announced that they had seen a small number of diamonds that had undergone this process; the stones were between 0.30 ct and 7 ct with a range of colours and clarities. GIA have been conducting their own experiments on decolouring diamond and are cross-referencing their results with Lazare Kaplan.

After lunch the subjects were *The importance of electronic networking, Critical issues, Marketing opportunities*, and the 'War Room' session was on *Diamond cut*.

The final sessions for the day were *Perspectives on the diamond market, Coloured stone sources and Retailing in the new millennium*, with a 'War Room' on *Disclosure*.

That evening there was a finger buffet followed by a fashion show sponsored by the Japan Pearl Promotion Society, the South Sea Pearl Consortium and Robert Wan/Tahiti Perles.

Thursday was the final day of the Symposium and its format was quite different to the previous two days.

Breakfast was followed by an event entitled *Gemmology greats* in which Bill Boyajian was in conversation with Richard Liddicoat, Bob Crowningshield, Bert Krashes and Glen Nord, who described how they came to join GIA and talked about the early years with the organization.

The rest of the morning was entitled *Building business in the 21st century*. Four speakers, each a leader in their particular field, talked about their

view on what lay in store for business in the next century.

Following lunch Maurice Templesman, Chairman of Lazare Kaplan, gave the closing address and Bill Boyajian officially closed the Symposium.

The Gala Dinner that evening was sponsored by the Vicenza Trade Fair Board and included a tableau presented in five scenes, chronicling the development of Italian art through the ages and into the next millennium, a fitting finale to a truly international symposium.

Presentations

A summary follows of the sessions I chose to attend

Diamond sources

John Gurney (University of Cape Town, South Africa) discussed diamond production in Africa. He estimated that since the start of production in the 1870s, 75% by value of all gem diamond had come from the African continent. He outlined the current activity at the various localities and indicated the life expectancy of some of the older mines in Africa.

A.J.A. (Bram) Janse (Perth, Australia) talked about the various deposits in Australia and outlined their likely development in the future.

Douglas Paget (Quebec) described Canada as the latest diamond producing country, highlighting Ekati which is likely to have at least a twenty-year life producing a high proportion of gem-quality material. Other mining companies are expected to develop mines in the near future so it is conceivable that Canada could soon be producing 10% of the world's diamonds.

Nikolai Sobolev (Novosibirsk, Russia) said that Russia is the second largest producer by value. Various mining localities were described and the difficulties in mining in some areas were discussed. The new Lomonosov mine in Arkhangelsk is likely to come on line early in the 21st century.

The aim of the session had been to detail present diamond production, try

to look into the future and to predict what it may hold – and this it did to a large degree.

Role of man-made materials

Thomas Chatham (Chatham Created Gems) spoke on *Opportunities with luxury synthetics*. His presentation described the growing opportunities for the marketing of synthetic gemstones. He compared synthetic gemstones with other inventions, many of which we did not need at the time but now cannot live without!

The topic of Hisashi Machida (Kyocera Corp.) was *Production and distribution* in which the range of materials being produced by Kyocera was outlined as well as some of the production methods.

Emmanuel Fritsch (Institut des Matériaux de France) gave a presentation centred around the techniques available for the detection of synthetic gem materials. He outlined the laboratory equipment available but emphasized that observation was the most important tool available.

Kurt Nassau talked about the future of synthetic gemstones, commenting that one or two new materials had been produced each decade. The latest material to come onto the gem market was synthetic moissanite; 18,000 carats were produced in 1998 and so far this year 14,000 carats have

been made. Other material being produced around the world includes synthetic red beryl, synthetic quartz, flux grown synthetic red spinel and synthetic diamond.

One question from the floor was: 'Is synthetic forsterite being produced as a tanzanite imitation?' The answer was that it is being grown for laser use but that it had not been seen as a tanzanite imitation by the panel.

Pearls – the sources

Shigeru Akamatsu (K. Mikimoto & Co Ltd.) discussed the present situation and future prospects of Akoya Cultured Pearls. Current Japanese production is being hit by the deaths of oysters due to toxins, viruses and plankton. There is a new kind of plankton that attacks only bivalves causing death within minutes. At present there is no protection against this 'red tide' other than by monitoring and predicting the tide and to move the farm before the plankton arrives. Some Akoya cultured pearls are being grown in China and exported to Japan. If the future of Japanese production is to improve, new techniques are needed. Some Japanese farms are moving to new localities such as Vietnam,

Both natural and cultured fresh water pearls were discussed in a presentation by James L. Peach. Natural freshwater pearls from North America, from the Unio Mussel, are now scarce due to pollution, government restrictions and over-harvesting. There is one farmer in Tennessee producing various shapes of nucleated cultured freshwater pearls but production is very small by world standards. In Japan there is now no production from Lake Biwa although there is limited production of nucleated fresh water pearls from Lake Kasamiga near Tokyo. Experiments in producing nucleated cultured fresh water pearls in China are continuing but as yet there is no commercial production.

China is the sole producer of non-nucleated freshwater cultured pearls and there are large numbers available in a range of qualities and sizes up to 15mm. He also outlined production of Akoya, South Sea pearls from Australia, and Tahiti pearls.

Robert Wan (President of Tahiti Pearls) outlined the history of Tahiti

pearls from the discovery of natural black pearls in 1767 through to the mid-seventeenth century when supply stopped due to over harvesting. The supply of cultured pearls from French Polynesia has soared from 1 kilo in 1972 to 6 tonnes in 1998. The next 4–5 years should see production rise to 8 tonnes. The number one market for these pearls is Japan, taking 70% of production by volume (62% by value) with the US taking 11% by volume (17% by value). *Pinctada margaritifera* (the oyster species used) lives up to 30 years, and can produce pearls of up to 15 mm–20 mm but 8 mm–18 mm is usual; 40% of all grafts are rejected.

In his look at the *History of South Sea cultured pearls*, Andy Muller traced the story of this type of cultured pearl back to 1928 in Indonesia. In the mid 1950s Burmese and Australian projects to harvest South Sea cultured pearls began with the first commercial harvest later that decade. During the 1960s farms in Australia grew and were joined by other companies in Indonesia, Philippines, Malaysia and Thailand.

Estimated future annual production of South Sea cultured pearls from *Pinctada maxima* is expected to be in excess of 3500 kilograms.

Manufacturing and marketing of diamond jewellery

Anna Martin (ABN AMRO Bank) centred her presentation around current and world finance and how the burden of investment and stockholding had shifted from the retailer to the manufacturer, but that in the future there will have to be more of an equilibrium.

The retailers' perspective was put by Edward Bridge (Ben Bridge Jewellers). After opening by stating that the future is uncertain, Bridge highlighted five points that would shape jewellery retailing, particularly in the US:

1. The current record economy had pushed up diamond sales;
2. There would be more choice in the type of sources for the public to buy jewellery (e.g. the Internet and other non traditional jewellery outlets), although it is likely that the majority of clients will

want to purchase jewellery from stores where they can handle the jewellery;

3. Branding of merchandise will become increasingly important;
4. Design-clients will want more individual jewellery;
5. There are demographic changes, those groups that purchase jewellery are likely to change.

Sheldon Kwiat (Kwiat Inc.) outlined the importance of the diamond grading certificate. Since the first diamond grading report in 1955, diamond certificates had become increasingly important as a sales tool. But in the future there is going to be a trend towards smaller stones and so the education of staff and clients is going to be increasingly important. 'Look at the diamond not the certificate.'

Eve Goldberg (William Goldberg Diamond Corp.) echoed this statement to a certain extent with the slogan 'The magic is in the make.' She stressed the importance of a diamond being polished for the quality of cut and not to maximize yield. She stated that clients are asking for quality and the people like to touch jewellery. Nevertheless, sales on-line through the internet will grow and to counter this, we are going to have to return to the romance of jewellery.

Treatments

Ilene Reinitz (GIA Gem Trade Lab, New York) discussed diamond treatments in which she talked first about those treatments that affected clarity and then dealt with those treatments that affected colour.

John Emmett (JLE Associates) spoke on the treatment of ruby and sapphire. There was an overview of the heat treatment of sapphire and ruby, then he discussed the use of fluxes resulting in so-called glass filling and concluded with diffusion treatment.

Henri Hänni (SSEF) gave a presentation on emerald treatments: the use of oils both natural and artificial, resins and epoxies, alone or in combination, and detection of the treatments.

Kurt Nassau finished the session with an overview of coloured gemstone treatments and how stable the various treatments were.

Diamond cut

The panel of speakers comprised Ilene Reinitz of GIA, Al Gilbertson of Gem Profiles, William Goldberg, Niels Ruddy Hansen from Denmark, Richard von Sternberg, of the Eight Star Diamond Company, Robert Speisman and Eric Austin. They each gave a short address outlining their views and then the audience was encouraged to join in the lively debate. I have to say that there was a vigorous exchange of many different views but there was no consensus at the end of the session.

Coloured stone sources

Robert Kane outlined ruby and sapphire occurrences in every continent apart from Antarctica, and the various localities were discussed.

Dietmar Schwartz (Gübelin Laboratory) gave a talk centred around new emerald localities, when they were discovered and what is happening at the present time.

Abe Suleman (Tuckman Mines and Minerals Ltd.) is based in Tanzania and his talk was about new sources in Africa and Madagascar. Africa has been arguably the greatest source of excitement in the world of coloured stones for the past half-century and there are still large areas that have not been prospected.

William Larson (Pala International) seemed to have been asked to cover everything else! In his title *Review of localities in North America, Russia and South East Asia*, he essentially travelled around the world in 20 minutes.

One to watch for!

A Horizon programme concerning diamonds in the gem and jewellery market is, at the time of writing, scheduled to be transmitted by BBC2 TV either in December 1999 or January 2000.

It is believed to include aspects of the production of synthetic diamonds and should be of considerable interest to gemmologists.

Letter to the Editors

Hallmarking: where do we go from here?

Readers of GJN will no doubt be acquainted with the changes which were implemented in January 1999 as a consequence of the now commonly termed 'Houtwipper' case dating back to a decision in the European Court of Justice in 1994.

Many rejoinders between the London Assay Office and members of the retail trade have been read in the correspondence columns of the *Retail Jeweller*. As a shopkeeper, I am still concerned that the best efforts of the British Hallmarking Council leave me in a difficult position.

Many customers having been weaned on a diet of watch-dog programmes, are encouraged to, and are well versed in, every form of procrastination. Our Laws of Consumer Protection give the general public every opportunity to complain about an article they have purchased and some local Trading Standards Offices are only too willing to give the general public assistance in presenting their case.

I am, as a long-standing member of the jewellery trade, completely supportive of all the above-mentioned detail and ask only that the trade associations and councils supply me with the necessary information so that I can then represent myself to my clientele in a well-prepared and professional manner.

Reading the British Hallmarking Council's 'guidelines' leads me to the conclusion that there is a severe shortfall in the amount of new information which retailers should have to hand. I labour under the simple notion that the law is written to produce certainty!

I then read, *'There is no denying that it is particularly difficult to determine in practice whether the contents and value of the information set out on a hallmark prescribed by a given country is equivalent to the same requirement imposed by another state.'* (Stated by Advocate General Caporati in Robertson.)

I further understand that there is an 'approved list' of countries which fulfil the paragraph 4 criteria: Austria, Denmark, Finland, Ireland, Norway, Portugal, Spain, Sweden and Switzerland. There is another list of countries participating in the Vienna International Convention which have marks that are recognized in the UK but Spain is absent and the Czech Republic is present.

All this information is fine but the trade has not been served with a comprehensive and easily recognizable list of these marks, and as professional people we will not be able to plead ignorance in the event of a dispute. A discreet enquiry as to why such a set of illustrations is not available leads to the sorry comment, 'We have written to the countries concerned and they have been slow to cooperate.'

In the world of the Internet this answer smacks of tardy behaviour on behalf of the parties involved. The Houtwipper decision was taken by the European courts in September 1994. The implementation of this decision occurred in January 1999 (nearly five years later). It is unreasonable for retailers to be trading without this highly relevant information being made available.

I put it to our trade councils and associations that Ludomira Neeltje v. Barbara Houtwipper should have taught us one thing if nothing else. Inflexibility, intransigence and a lack of cooperation will only serve to compound the problems which now exist. Do we resort to the private sector for this information? Is there a budding Mr Jackson, or a Mr Grimwade around the corner? Will Eric Bruton supply an answer? Do we need a reprint of Tardy's *Poinçons d'Argent d'Or et de Platine*? Is it possible to produce an amended form of the ever-popular Bradbury's book of hallmarks?

All constructive replies will be greatly appreciated!

Mike Clough
Clough's, London W1Y 9PF

Book shelf

Falize, a Dynasty of Jewelers, Katherine Purcell, 11¼" x 8¾", 320 pages, 414 illus. (157 in colour), hard-bound with DW, Thames and Hudson, London 1999, ISBN 0-500-01911-8. £50.

The March issue of *GJN* included an extensive synopsis of Katherine's SJH Falize lecture and details of Wartski's Falize Loan Exhibition. The exhibition was superb, with an excellent catalogue, and now we have this fascinating book. Full reviews will be published in forthcoming issues of both the *Journal of Gemmology* and *Jewellery Studies*. It is, therefore, almost sufficient to say here that, while not cheap, the book can be very highly recommended. Not only is the subject exhaustively and expertly dealt with in an extremely readable style, but it conjures up a (now almost unimaginable) more elegant way of life from the past.

Please do not write to us or the author about the title: that is how Thames and Hudson now spell 'Jewellers'.

The Clockmakers of London, George White, 10¼" x 8¾", 48 pages, numerous colour and B&W illus., softcover. Worshipful Company of Clockmakers, 49 Queen Victoria Street, London EC4N 4SE. ISBN 0-9512978, £7.95 (postage and packing free to UK readers of *GJN* – overseas readers please write for a proforma invoice).

There are one hundred livery companies, of which 77 were founded by 1709, and the remainder in the last 75 years. Amongst the older companies the Clockmakers, dating from 1631 is, therefore, a relative youngster. Prior to this time the majority of clocks were for churches and were the preserve of the ancient Blacksmiths' Company. This most elegant slim volume describes the beginnings of horology, the growing impor-

Members of the GAGTL wishing to raise issues concerning GAGTL activities are reminded that they may contact the Chairman of the Members' Council, Colin Winter, c/o the GAGTL, 27 Greville Street, London EC1N 8TN.

tance of London as a horological centre, and the disputes with the Blacksmiths that led to the Clockmakers' formation. It then deals with the inseparable history of the Company and horology up to the present. The combination of succinct, but information packed, text and mouthwatering illustrations bring to life legendary makers and their amazing creations. A must-have publication for anyone with the slightest interest in clocks and watches, livery companies, or indeed the history of London. Available to callers from the Guildhall Library (look at the Company's collection on view there).

Hallmark, a History of the London Assay Office, J.S. Forbes, 10" x 6¾", 367 pages, illus. in colour and B&W, hard-bound with DW, The Goldsmiths' Company, London 1999, ISBN 0-906290-26-0, £38 including post, from The Library, The Goldsmiths' Hall, Foster Lane, London, EC2V 6BN, payment by UK or Euro-cheque.

Hallmarking affects all of us with any connections with jewellery and/or plate. This book explains the early methods of testing (assaying) precious metals and the attempts to guard against sub-standard wares. It describes how the king's mark (a lion full face) was first used in 1300 and evolved through seven centuries to the current London leopard's head. Date letters were first struck in 1478.

The legal rights given to the Goldsmiths' Company to check and mark wares at their Hall (hallmarking) and impose penalties on makers of sub-standard wares are dealt with in great detail. The methods of assaying are lucidly explained so as to be understandable to the layman, as are the changes in standards, duties and marking. Along the way the reader is treated to a veritable feast of fascinating anecdotal history about the Company's officials and members. A glossary is provided, as is a reasonable bibliography and an extremely comprehensive index. This is not a book that is easy to read straight through (the 'plot' is rather difficult to stay in touch with) but it is the definitive reference work on its subject, and it is certainly both entertaining and rewarding to read over a period.

Nigel Israel

Competition

My old trickster friend was in town again and had a parcel of unusual cut stones. He gave me a price per carat and I picked out a stone weighing exactly 9 carats. When I asked him how much the total cost of the stone would be he gave me a price which ran into four figures, being an exact value in pounds with no pence in the price. When I questioned his price, he explained that he had charged me a pick price. I then pointed out that the price for the one stone was now more than the price of the total parcel at the old price, he scratched his head, and said that he had made a mistake. He had multiplied the *total price* of the stone by nine instead of the *carat price* of the stone by nine. He crossed out the first figure of the four figure sum, and the three figure sum now left was the correct price.

What was the correct value of the stone?

The answer to the puzzle in the June issue of GJN:

The missing letters were:
S R T E; R A L Z; E S E E

Each set of letters represented two words with their letters printed alternately. The pairs of words were Amethyst and Sapphire, Pearl and Topaz, and Filigree and Repoussé.

Harry Levy

Playgroups

The London Wednesday Gem Club ('Playgroup') celebrated both the completion of its fifth year and its 250th session on 30 June. Details of any of the materials examined can be obtained from Michael O'Donoghue, who can also provide copies of the session notes of the Post-Diploma class held by him during 1998–99 at London Guildhall University. These sessions included a good deal of historical and topographical mineralogy as well as gemmology and the notes may be of interest to readers since some of the material might otherwise be hard to find and some of it is presented in an individual style! Write to Michael at 7 Hillingdon Avenue, Sevenoaks, TN13 3RB.

Society of Jewellery Historians

Unless otherwise stated, all Society of Jewellery Historians' lectures are held at the Society of Antiquaries, Burlington House, London W1 and start at 6.00 p.m. sharp. Lectures are followed by an informal reception with wine. Meetings are open only to SJH members and their guests. A nominal charge is made for wine to comply with our charity status.

4 October. GERTRUD SEIDMAN

A gift from Gabriele d'Annunzio and some other engravings on precious stones.

8 November. GEOFFREY MUNN

The Tiara – elegance abandoned. A light-hearted look at an evolution of style.

6 December. GRAHAM HUGHES

The International Exhibition of Modern Jewellery, Goldsmiths Hall, 1961.

2000

24 January. JOHN CHERRY

Virtuous words, stones and rings: healing with jewels.

6 March. HELEN DRUTT-ENGLISH

Beyond ornament: 20th century jewellery. A visual journey: four decades 1960–2000.

10 April. SHENA MASON

'Great temple of Les Beaux Arts': 18th century Birmingham and the Soho Manufactory.

22 May. MARY BRID DEEVY

Medieval ring brooches in Ireland; a study of jewellery, dress and society.

Gemmological Association and Gem Testing Laboratory of Great Britain

London Branch

Meetings will be held at either the GAGTL Gem Tutorial Centre, 27 Greville Street, London EC1N 8TN, or Imperial College, South Kensington, at 6.00 for 6.30 p.m. Entry will be by ticket only at £4.00 for a member (£6.00 for a non-member).

22 September – Gem Tutorial Centre
Gem trails from the Orient to Germany
IAN MERCER

12 October – Imperial College
Jewellery production problems and what to look out for
MICHAEL MARKS

31 October – Barbican Centre
1999 Annual Conference
New developments in the gem world
See p. 50 for further details.

8 December – Imperial College
Jewellery and silverware today
CHRIS WALTON

2000

15 February – Imperial College
Some sites of precious minerals in England
DR R. F. SYMES

15 March – Imperial College
Chalcedony – 21st century girl's best friend
STEPHEN WEBSTER

Midlands Branch

Friday meetings will be held at The Earth Sciences Building, University of Birmingham, Edgbaston at 6.30 for 7.00 p.m. Admission £2. For further information call 0121 445 5359. Gem Playgroups are held from 3 p.m. on the Sundays indicated.

24 September
Presentations by GWYN GREEN,
DOUG MORGAN and DENIS PRICE

26 September – Gem Playgroup

29 October
The recognition and identification of treatments
PROFESSOR HENRI HÄNNI

31 October – Gem Playgroup

26 November
The Crown Jewels
E. ALAN JOBBINS

4 December – Annual Dinner

28 January 2000
Bring and Buy, and Quiz

30 January – Gem Playgroup

25 February
Gem trails from the Orient to Germany
IAN MERCER

27 February – Gem Playgroup

North West Branch

Meetings will be held at the Church House, Hanover Street, Liverpool 1. For further details contact Deanna Brady on 0151 648 4266.

20 October
Window to beauty
PIERO DI BELA

17 November
AGM, and an informal collection and talks on *Diamonds and simulants*

Scottish Branch

For details of Scottish Branch meetings contact Catriona McInnes on 0131 667 2199.

4 October
Opals
JOHN WHEELER

3 November
New African gemstones
CAMPBELL BRIDGES